## OAK RIDGE NATIONAL LABORATORY

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POST OFFICE BOX Y
OAK RIDGE, TENNESSEE

October 10, 1960

Prof. J. Lederberg
Department of Genetics
Stanford University Medical Center
Palo Alto, California

Dear Joshua:

Pursuant to our conversation last week, I am sending along some information and some reprints.

After some thought, however, I am not sure that the position you have described would be the best one for me. This uncertainty derives from a concern over how much success can be attained by a program of this size. The technical problems can be expected to be most formidable, requiring the best efforts of two or three physicists of high caliber plus considerable backing in the way of technical assistance and equipment. For example, the UV source will probably have to combine a degree of ruggedness, stability and intensity that is not found in existing sources.

As a physicist with special competence in optics, I would probably solve some of these problems readily. Other problems would be more refractory, and might yield only (for example) to a physicist with considerable skill and experience in electronics and information theory. An average electronicist would be of little help here. Moreover, with too small a staff I would probably have to devote a great deal of time to routine engineering of a sort that demands relatively little skill and imagination.

I am sure that you have thought these things through, and have reached a realistic conclusion as to how far you can go with a certain amount of backing, within the framework of current capital costs and salaries in physics and engineering. Nevertheless I have offered these reactions in the hope that you might glean something useful from them.

Bill Arnold and I have talked this over, and we both feel that the problem is basically a most exciting one. I think Bill and I would both be tempted to get our feet wet, if the backing were stronger.

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In the meantime I would probably be happy to serve as a consultant in optics, should this become desirable from time to time.

With best regards to you and Esther,

Sincerely yours,

Roderick K. Clayton Biology Division

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